What is claimed is:

1.   A method of registering ownership transfers, comprising steps of:

        receiving information describing an ownership transfer of an identified product;

        assigning a unique identifier to represent the ownership transfer;

        computing a cryptographic signature over the assigned unique identifier and at least a portion of the received information; and

        registering the ownership transfer by storing the received information, the computed signature, and the assigned unique identifier in a repository.

2.   The method according to Claim 1, wherein the received information also describes prior ownership transfers of the identified product.

3.   The method according to Claim 1, wherein the registering step uses the assigned unique identifier as an index when storing the received information, the computed signature, and the assigned unique identifier in the repository.

4.   The method according to Claim 1, further comprising the step of providing the assigned unique identifier to the identified product for recording thereupon.

5.   The method according to Claim 1, further comprising the steps, responsive to the receiving step, of:

        locating information describing a most-recent ownership transfer of the identified product;

4   and

5   continuing with the assigning, computing, and registering steps only upon determining that

6   a previously-computed cryptographic signature of the located information is valid.

1   6.   The method according to Claim 1, wherein the received information is transmitted from

2   product-integral storage of the identified product.

1   7.   The method according to Claim 6, wherein the product-integral storage is a memory of a

2   radio frequency identification device.

1   8.   The method according to Claim 6, wherein the product-integral storage is a memory of a

2   machine-readable identification device.

1   9.   The method according to Claim 1, further comprising the step of determining the

2   identified product's current owner by consulting the registered ownership transfer.

1   10.   The method according to Claim 1, further comprising the step of registering a subsequent

2   ownership transfer of the identified product.

1   11.   The method according to Claim 10, wherein the step of registering the subsequent

2   ownership transfer further comprises the steps of:

3   receiving, information describing the subsequent ownership transfer;

4   locating information describing the registered ownership transfer; and

5   continuing with the registration of the subsequent ownership transfer if the cryptographic

6   signature of the located information is valid, further comprising the steps of:

7   assigning a new unique identifier to represent the subsequent ownership transfer;

8   computing a new cryptographic signature over the assigned new unique identifier

9   and at least a portion of the received information describing the subsequent ownership transfer;

10   and

11   registering the subsequent ownership transfer by storing the received information

12   describing the subsequent ownership transfer, the new computed signature, and the new assigned

13   unique identifier in the repository.

1   12.   A method of providing a product-integral transaction receipt, further comprising steps of:

2   computing, for each transfer of the product, a cryptographic signature over fields

3   describing the transfer;

4   permanently recording the cryptographic signature, along with at least a portion of the

5   fields, on the product; and

6   recording the cryptographic signature and the fields in a separate repository.

1   13.   The method according to Claim 13, when the permanently recording step uses a bar code

2   representation.

1   14.   The method according to Claim 13, when the permanently recording step uses a matrix

2   code representation.

1   15.   The method according to Claim 13, when the permanently recording step uses an indelible

2   text representation.

1   16.   The method according to Claim 13, when the permanently recording step uses a radio

2   frequency identification device.

1   17.   A system for establishing a secure electronic transaction receipt for a product, comprising:

2   means for accessing a product-integral ownership record to determine a current owner of

3   the product; and

4   means for securely revising the product-integral ownership record to reflect a new owner

5   of the product, pursuant to a transfer of the product, only upon ensuring that a purported

6   transferor in the transfer is the current owner.

1   18.   The system according to Claim 17, wherein the means for securely revising further

2   comprises:

3   means for computing a cryptographic signature over data pertaining to the transfer; and

4   means for recording the cryptographic signature, along with at least a portion of the data

5   pertaining to the transfer, in the product-integral ownership record.

1   19.   The system according to Claim 17, further comprising means for logging a record of the

2   transfer in an audit repository.

1   20.   The system according to Claim 19, wherein the record comprises the cryptographic

2   signature and the data pertaining to the transfer.

1   21.   The system according to Claim 19, wherein the data pertaining to the transfer includes a

2   globally-unique identifier associated with the transfer.

1   22.   The system according to Claim 21, wherein the globally-unique identifier is used as an

2   index for logging the record and is also recorded in the product-integral ownership record.

1   23.   A computer program product for providing an auditable trail of product transfers, the

2   computer program product embodied on one or more computer-readable media and comprising:

3   computer-readable program code means for computing, for each transfer of a particular

4   product, a globally-unique identifier associated with the transfer;

5   computer-readable program code means for computing a cryptographic signature over one

6   or more values describing the transfer;

7   computer-readable program code means for recording the cryptographic signature, the

8   globally-unique identifier, and zero or more of the values in a product-integral ownership

9   repository on the particular product;

10   computer-readable program code means for recording an audit record for the transfer in

11   an audit repository, wherein the audit record comprises the cryptographic signature, the globally-

12   unique identifier, and the values; and

13   computer-readable program code means for tracing transfers of the particular product

14   using each of the audit records that pertains to the particular product.

1   24.   The computer program product according to Claim 23, wherein each audit record that

2   pertains to the particular product further comprises a second globally-unique identifier which is

3   associated with a next-previous transfer of the particular product, and wherein the computer-

4   readable program code means for tracing further comprises iteratively using the second globally-

5   unique identifier, when processing the audit record, to locate the audit record which records the

6   next-previous transfer.

1   25.   A method of providing a transfer agent service, comprising steps of:

2   receiving, at a transfer agent, transfer information for a transfer of a product;

3   creating a globally-unique identifier to represent the transfer; and

4   registering the transfer by computing a digital signature over at least a portion of the

5   received transfer information and the created globally-unique identifier and logging the computed

6   digital signature and the portion of the received transfer information.

1   26.   The method according to Claim 25, further comprising the step of charging a fee for

2   carrying out one or more of the receiving, creating, and registering steps.

1   27.   The method according to Claim 25, wherein:

2   the received transfer information comprises a transfer history of the product and values

3   pertaining to the transfer; and

4   the portion over which the digital signature is computed in the registering step comprises

5   the transfer history of the product and the values pertaining to the transfer.

1   28.   The method according to Claim 25, further comprising the step of transmitting, from the

2   transfer agent for recording in a product-integral repository on the product, the globally-unique

3   identifier, the portion of the received transfer information, and the digital signature.

1   29.   The method according to Claim 27, further comprising the step of computing a second

2   digital signature over the values pertaining to the transfer; and

3   wherein the registering step logs the digital signature, the second digital signature, and the

4   values pertaining to the transfer.